REMARKS/ARGUMENTS

The Examiner is thanked for the final Office Action mailed August 17, 2010. The status of the application is as follows:

- Claims 1 and 3-21 are pending, and claims 1, 3-7, 12, 13, 15, 17, 19, and 20 have been amended;
- Claims 1, 3-7, 13 and 15-21 are objected to for informalities;
- Claims 12-14 and 17-19 are rejected under 35 U.S.C. 112, second paragraph;
- Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinman (US 4,597,094) in view of Mahnken et al. (Detection of Colonary Calcifications: Feasibility of Dose Reduction with a Body Weight-Adjusted Examination Protocol; Auguat 2003; AJR; 181:533-538) and in further view of Hsieh (US 5,696,807).

The objections and rejections are discussed below.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 1-7, 15, 16, 20 and 21 are allowed, that claims 17-19 would be allowable if rewritten to overcome the 35 U.S.C. 112 rejection, and that claims 11-14 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

The Objection to Claims 1, 3-7, 13 and 15-21

Claims1, 3-7, 13 and 15-21 stand objected to for informalities. The objection to these claims should be withdrawn in view of the amendments herein, which are in accordance with the Examiner's suggestions.

The Rejection of Claims 12-14 and 17-19 under 35 U.S.C. 112, Second Paragraph

Claims 12-14 and 17-19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is rejected as being indefinite insofar as it is unclear whether the phrase "a target required noise level" is referring to a new target required noise level or to the target noise

level recited in parent claim 8, line 5. Claim 12 has been amended herein to replace "a" with "the." Accordingly, applicant requests withdrawal of this rejection.

Claims 17 and 19 are rejected for lacking proper antecedent basis. Claims 17 and 19 have been amended herein to cure the lack of antecedent basis. Applicant respectfully requests withdrawal of the rejections.

Claims 13 and 14 stand rejected for depending on claim 12, and claim 18 stands rejected for depending on claim 17. The rejections of these claims are moot in light of the above-noted amendments to claims 12 and 17.

The Rejection of Claims 8-10 under 35 U.S.C. 103(a)

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinman in view of Mahnken et al and Hsieh. This rejection should be withdrawn because the combination of Kleinman, Mahnken and Hsieh does not establish a *prima facie* case of obviousness with respect to the subject claims.

> The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). MPEP §2143.

Independent claim 8 states: a method of diagnostic imaging including: selecting a target required radiation dose of an x-ray tube in accordance with physical parameters of a patient to be examined, wherein the target required radiation dose is determined based on a body mass index for the patient and a constant selected in accordance with a targeted noise level; and performing an x-ray diagnostic examination of the patient with an x-ray beam with the selected radiation dose. The office asserts that the combination of Kleinman (col. 2 lines 49-66; col. 4 lines 19-45; fig. 1), Mahnken et al. (pg. 533 "objective" and "results", pg. 533 col. 2 last para; pg. 534 col. 1 para 1, pg. 534 col. 3 last para, and figs. 2 and 4) and Hsieh (abstract and col. 3 lines 32-39) teaches all elements of claim 8. Applicant respectfully traverses this assertion.

The office asserts Mahnken et al. teaches that a physical parameter is a body mass index for a patient. Mahnken et al., the "results" section, states that the effective radiation dose was

reduced by 11.6% for men and 24.8% for women using the *body weight-adapted* tube current time settings. Mahnken et al., p. 534, col. 3, last paragraph, and figures 2 and 4, discloses the plotted noise-to-body weight and noise-to-body mass index ratios for the standard protocol suggested relatively higher radiation doses for patients of lower weight compared with the *body weight-adapted* examination protocol. In this context, the cited sections, Mahnken et al. teaches using the body mass index to measure how effective the body-weight adapted tube current time settings method is at reducing radiation dose. However, claim 8 requires using body mass index to *determine the target radiation dose for a scan*, and not an after scanning measure. The above-cited sections of Mahnken et al. are silent and do not contemplate using the body mass index to *determine the target radiation dose for a scan*. Rather, the cited sections of Mahnken et al. teach that the body mass index is taken into account *after* the scan and the determination of the radiation dose. Kleinman and Hsieh do not make up for the deficiencies of Mahnken et al..

The Office asserts that Hsieh teaches that a target radiation dose is determined based on a constant selected in accordance with a target noise level. In the Abstract, Hsieh states that a desired noise level for a final image is selected, and a desired minimum x-ray photon reading and a desired average x-ray photon reading are identified to produce an image in accordance with the desired noise level. During scanning, actual x-ray photon readings are used with the desired average x-ray photon reading and the desired minimum x-ray photon reading to generate an x-ray modulating factor. This modulating factor is then used to modulate the x-ray tube current. Hence, the above-cited sections teach that *during scanning* an x-ray modulating factor is generated. In claim 8, the target radiation dose is determined and selected *before* performing the scan as the x-ray diagnostic examination of the patient is performed with an x-ray beam with the selected radiation dose. Kleinman and Mahnken et al. fails to make up for this deficiency of Hsieh.

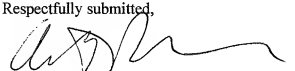
In light of the above, the combination of Kleinman, Mahnken et al., and Hsieh does not teach or suggest all the claim aspects of claim 8. Accordingly, this rejection should be withdrawn.

Claims 9 and 10 are dependent on claim 8 and are allowed at least by virtue of their dependencies.

Conclusion

In view of the foregoing, it is submitted that the claims distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,



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